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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/729,103	12/05/2000	Kenzi Suzuki	200538US0	6416

22850 7590 03/26/2004

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

MEDINA SANABRIA, MARIBEL

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/729,103

Applicant(s)

SUZUKI ET AL.

Examiner

Maribel Medina

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004 and 10 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/10/04 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by US Patent No. 4,666,945 (Osugi et al).

Osugi et al discloses a method for producing a CuZnAlZr oxide catalyst, comprising the steps of: (a) adding a suitable precipitating agent to a mixed aqueous solution of water soluble copper-, zinc-, zirconium-, and aluminum- compounds to coprecipitate a mixture of water insoluble copper-, zinc-, zirconium-, and aluminum- compounds (See col. 3, lines 15-20; col. 4, lines 63-68; and col. 5, lines 1-2); (b) producing a precipitate (See col. 3, lines 20-30); (c) separating by filtration (see col. 4, lines 51-55); (d) washing (see col. 4, lines 51-55); (e) drying(see col. 4, lines 51-55); and (f) calcining (see col. 5, lines 64-68). The water soluble copper compound may be cupric nitrate (See col. 3, lines 55-56); the water soluble zinc

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compound may be zinc nitrate (See col. 3, line 63), the water soluble zirconium compound may be zirconium oxynitrate (see col. 4, lines 1-2), and the water soluble aluminum compound may be aluminum nitrate (see col. 5, line 11). The precipitating agent includes sodium carbonate and sodium hydroxide (See col. 4, lines 19-33).

In regards to claim 2 the limitation “ $(\text{Cu} + \text{Zn})/(\text{Al} + \text{Zr}) = 2 \text{ to } 4$ ” is provided by Table 1 Examples 5, 6, 7, 9, 10, and 11 which include the molecular ratio of the components before preparing the catalyst.

In regards to claims 3, Osugi et al clearly discloses the catalyst made by the process of claims 1 and 2.

In regards to the new limitations of claim 1 that reads “reacting a mixture of aqueous solutions of each nitrate of Cu, Zn, Al, and Zr with and aqueous NaOH solution and aqueous NaCO_3 solution while agitating the mixture at room temperature and pH of approximately 9” and “washing the precipitate with deionized water until the pH of the filtrate becomes 7”.

Osugi et al disclose adding the precipitate solution (NaOH and NaCO_3) at room temperature while agitating (See col. 4, lines 40-42; col. 7, lines 1-2, 25-27, 49-50) in amounts in the range from 0.8 to 2 equivalents (See col. 4, lines 19-33). The addition of the precipitating agents in the amounts and temperature disclosed by Osugi et al, inherently provides the instantly claimed pH of approximately 9. Note In re Best, 195 USPQ at 433, footnote 4 (CCPA 1977).

Osugi et al disclose washing the filtered precipitate with deionized water (See examples). The addition of deionized water at the amounts taught by Osugi et al, inherently provides the instantly claimed pH of 7. Note In re Best, 195 USPQ at 433, footnote 4 (CCPA 1977).

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Note In re Best, 195 USPQ at 433, footnote 4 (CCPA 1977).

Therefore no difference is seen between the instantly claimed invention and Osugi et al.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Osugi et al.

Osugi et al disclose a CuZnAlXr oxide catalyst. In the event any differences can be shown for the product of the product by process claim 3 as opposed to the product taught by Osugi et al, such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results; see also In re Thorpe, 227 USPQ 964 (Fed. Cir. 1985).

Response to Arguments

6. Applicant's arguments filed 6/10/03 have been fully considered but they are not persuasive. Applicant's argue that "Osugi does not disclose what the Applicants' have discovered." This argument is not convincing, since Osugi et al process clearly disclose the instantly claimed method of making the catalyst and the instantly claimed catalyst.

The applicants asset that the incorporation of the new limitations ""reacting a mixture of aqueous solutions of each nitrate of Cu, Zn, Al, and Zr with and aqueous NaOH solution and aqueous NaCO₃ solution while agitating the mixture at room temperature and pH of

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approximately 9" and "washing the precipitate with deionized water until the pH of the filtrate becomes 7" are not disclosed or taught by Osugi et al.

However, Osugi et al disclose adding the precipitate solution (NaOH and NaCO₃) at room temperature while agitating (See col. 4, lines 40-42; col. 7, lines 1-2, 25-27, 49-50) in amounts in the range from 0.8 to 2 equivalents (See col. 4, lines 19-33). The addition of the precipitating agents in the amounts and temperature disclosed by Osugi et al, inherently provides the instantly claimed pH of approximately 9. Note In re Best, 195 USPQ at 433, footnote 4 (CCPA 1977).

Osugi et al disclose washing the filtered precipitate with deionized water (See examples). The addition of deionized water at the amounts taught by Osugi et al, inherently provides the instantly claimed pH of 7. Note In re Best, 195 USPQ at 433, footnote 4 (CCPA 1977).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maribel Medina whose telephone number is (571) 272-1355. The examiner can normally be reached on Monday through Friday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Maribel Medina

Examiner

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